

ROYAL LEAMINGTON SPA.

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Urban Sanitary District.

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# ANNUAL REPORT

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OF THE

Medical Officer of Health,

1898.

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Leamington Spa:

PRINTED AT THE "COURIER" WORKS, CHURCH WALK.

## HEALTH COMMITTEE.

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COUNCILLOR MOLESWORTH (CHAIRMAN).

THE MAYOR.

ALDERMAN BRIGHT.

„ THURSFIELD.

„ WACKRILL.

COUNCILLOR BAILEY.

„ BAKER.

„ JEAFFRESON.

„ MASON.

„ REEVE.

„ SMITH.

„ WENCH.

ACREAGE	...	...	...	...	...	...	...	2,760
POPULATION (Census 1891)	...	...	...	...	...	...	...	26,930
„	Estimated to middle of 1898	...	...	...	...	...	...	27,420
„	Estimated to middle of 1899	...	...	...	...	...	...	27,520
„	Per square mile	...	...	...	...	...	...	6,280

Town Sewage, pumped to Heathcote Farm.

Town Refuse, disposed of on land.

Height above Sea level	...	...	...	...	...	...	195 feet
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Geological Formation	...	...	...	...	New Red Sandstone
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Water Supply—Artesian Wells on Campion Hill, and at Lillington.

Respective depths of Wells	...	...	...	...	110 feet and 170 feet
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River Water is used for Watering Streets and Flushing Sewers.

SANITARY REPORT

OF THE

Borough of Royal Leamington Spa,

FOR THE YEAR 1898.

TOWN HALL, LEAMINGTON,  
11TH FEBRUARY, 1899.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH  
COMMITTEE.

GENTLEMEN,

According to your requirements, and the instructions of the Local Govern-  
ment Board, I beg to submit my Annual Report on the Sanitary state of your  
Borough for the year 1898, together with an account of the steps taken to  
prevent the spread of disease, and maintain the well-being of the inhabitants.

Vital Statistics.

BIRTHS.

523 births (261 males, 262 females) took place, giving a birth-rate of  
19·07, a fraction under last year's figures. Tables I. and II. show Births  
by Wards and Quarters.

TABLE I.

WARDS.	BIRTHS.	BIRTH RATE.	ESTIMATED POPULATION, 1898.
North-East ... ..	139	17·42	7,403
South-East ... ..	214	24·94	8,579
West ... ..	128	16·90	7,573
Milverton & Lillington	42	10·90	3,865
	523		27,420



TABLE II.

QUARTERS.	MALES.	FEMALES.	TOTALS.	BIRTH RATE.
1st	65	71	136	19·8
2nd	65	64	129	18·8
3rd	73	70	143	20·8
4th	58	57	115	16·7
Totals	261	262	523	

## DEATHS.

There were 453 deaths (204 males, 249 females). On making correction for 21 Leamington inhabitants who died outside the Borough, and for 50 persons who died in Leamington, not inhabitants thereof, the death-rate will be found to be 15·4 per thousand. Table III. gives total Deaths by Quarters.

TABLE III.

## Mortality.

## TOTAL MORTALITY BY QUARTERS.

QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.			DEATH RATE.
	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.	
1st	19	9	3	7	42	46	126	...	...	...	18·0
2nd	13	12	5	1	39	35	105	3	2	5	15·3
3rd	32	6	6	4	34	47	129	13	...	13	18·8
4th	12	5	2	6	38	30	93	4	1	5	13·5
Totals	76	32	16	18	153	158	453	20	3	23	

The mortality in first and third quarters was much above average. Epidemic Influenza and Pneumonia account for the high figures in first quarter. In March 50 deaths took place; one-half of those who succumbed were over 65 years.

In third quarter there was a marked rise in mortality under five years. This might be expected in a hot, dry season. Convulsions, diarrhoea, and premature births show a marked increase this year. The causes are, in my opinion, of a social nature.

Deaths under one year give a proportionate infantile death-rate of 145·3 per thousand births.

33 children who died under 5 years of age were insured. I notice that such numbers gradually increase each year.

#### CAUSES OF DEATHS UNDER 5 YEARS.

Debility from Birth	...	...	...	...	...	...	...	13
Bronchitis and Pneumonia	...	...	...	...	...	...	...	24
Convulsions	...	...	...	...	...	...	...	15
Dentition	...	...	...	...	...	...	...	3
Tuberculosis, including Phthisis, Tabes Mesenterica, and Tubercular								
Meningitis	...	...	...	...	...	...	...	2
Diarrhoea	...	...	...	...	...	...	...	13
Premature Birth	...	...	...	...	...	...	...	14
Marasmus	...	...	...	...	...	...	...	9
Injuries	...	...	...	...	...	...	...	3
Laryngitis	...	...	...	...	...	...	...	1
Influenza	...	...	...	...	...	...	...	1
Measles	...	...	...	...	...	...	...	1
Diphtheria	...	...	...	...	...	...	...	4
Syphilis	...	...	...	...	...	...	...	1
Membranous Croup	...	...	...	...	...	...	...	1
Peritonitis	...	...	...	...	...	...	...	1
Scarlatina	...	...	...	...	...	...	...	1
Enteritis	...	...	...	...	...	...	...	1
								—
								108

#### ZYMOTIC DEATHS.

Scarlet Fever	...	...	...	...	...	...	...	3
Diphtheria	...	...	...	...	...	...	...	5
Membranous Croup	...	...	...	...	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	1
Measles	...	...	...	...	...	...	...	2
Diarrhoea	...	...	...	...	...	...	...	13
								—

Showing a Zymotic death-rate of 0·9, double last year's numbers. Of course, but for the increase in Diarrhœa, many of which cases, I have no doubt, were not of Zymotic origin, this death-rate would have remained a very low one. From enquiries of medical men working among the poorer classes, I think that the outbreak of Diarrhœa in August was due to the extremely hot and dry season, and consequent fermentation in foods. The decrease, too, in the desire of mothers to suckle their infants is an important factor in such outbreaks. The majority of the sufferers are hand-fed.

## DISEASES.

### Small Pox.

This was not reported during the year. Fortunately, Leamington has been hitherto a well-vaccinated Borough, and Small Pox has had no fears for us, as shown by the manner in which the disease, when introduced from Birmingham in 1894, was at once stamped out.

Now, however, in consequence of the new Vaccination Act, parents delay the vaccination of their children. At the end of December, 1898, about 300 children in Leamington remained unvaccinated. I am informed on good authority that fully 80 per cent. or more of these will be submitted to the Public Vaccinator later on. I understand that only two persons got the benefit of the Conscience Clause during the year.

The public must remember that the Navy, Army, Post Office, Prison, and like Government Services, do not admit unvaccinated candidates. Again, in many foreign countries an unvaccinated person may not put foot.

In my opinion, large employers of indoor labour should be chary of having "unprotected persons" on their premises.

I hope that Leamington will still retain her high place as the best vaccinated Health Resort in England.

### Scarlet Fever (Scarlatina).

100 cases came to my knowledge, pretty well distributed over the various Wards. Naturally, Milverton Ward suffered least.

The disease was not of severe type: hence all the more difficult to tackle. Mild cases escape notice, and so the cases kept on cropping up. I had not occasion to ask for the closure of any school. Only one death was reported to me, in North-East Ward, and two deaths occurred in Heathcote Hospital, outside the Borough.



## Diphtheria.

19 cases were brought to my notice. Seven deaths took place, 5 inside Borough, 2 outside. Seven cases were due to insanitary premises, and 4 cases were introduced from a distance. The remainder could not be traced.

## Measles.

In March, Measles appeared in the South-East Ward, and spread so rapidly that, on finding that exclusion from school of individuals and families did not arrest its progress, I advised that the entire Infant Department of Clapham Terrace School should be closed from 28th March to 9th May, by which time the outbreak was gone.

On 27th May the Infant Schools of St. Peter's Roman Catholic Church had to be closed for one month, for an outbreak of Measles. I cannot say if these two outbreaks were connected, most probably they were. As in every such outbreak I found it impossible to check the disease by closing the Day Schools and allowing the Sunday Schools to remain open, I had the latter also closed. I had no difficulty in obtaining the co-operation of all classes of the clergy for this purpose, and our united efforts were successful.

2 deaths were reported in the South-East Ward.

## Typhoid (Enteric Fever).

13 cases were reported, principally in the South-East and West Wards. Of these, 5 were imported from a distance, and, in my opinion, 4 were due to contaminated milk, and 4 were doubtful cases, and may be disregarded.

The cases supposed to be due to milk were in different parts of the Borough, and all supplied by the same dairy. When certain prohibitions had been made, and the dairyman warned that his milk was suspected, no fresh case occurred.

No death was reported.

I suppose it is almost useless for me to recommend boiling or sterilising of all milk before use, but I see no other way of guarding against such occasional contamination, until the milk traffic is under State control, as in some Continental countries.

Most housewives think it too much trouble to perform this simple process of boiling, though they may be well aware of the risk of neglecting so to do.

A still further protection against Enteric Fever would be to boil all drinking water. In the best regulated water supply there may be a weak spot, such as in an "intermittent" system. Boiling of the water would obviate any such risk.



## Erysipelas.

26 cases occurred. Of these 17 were of climatic origin, and 6 were chronic cases, reported over and over again. One of the latter died; the remaining cases could not be accounted for. No insanitary premises were found in any case.

## General Sanitary Work—Improvements and Suggestions.

During the year I have, to the best of my ability, carried out the instructions of your Committee, and also the instructions of the Local Government Board, and I think that the results show that Leamington still holds a high place on the score of good health. The aged, of whom we have a large proportion, must die, in whatever town they may be situated. The increase in deaths under 5 years was not due to preventable causes. We hope we shall not see again such a long, hot, and dry summer as last.

At the end of the year only one case of Zymotic disease remained under treatment in the Borough, a case of Typhoid.

The new well at Lillington is very satisfactory. The yield is 430,000 gallons in twenty-four hours. The engine room is in course of completion.

A sewer ventilator gas column was fixed at the top of Church Hill, thus ventilating the sewers of Warwick New Road, Milverton Terrace, and Church Hill, at their junction at this point. This has proved a success.

12-inch pipe drains have been laid in Lillington Road; and also to replace culverts in Rosefield Terrace, and from Radford Road to St. Mary's Road. Also in Packington Place, and a 6-inch drain at back of Clemens Street. The latter was formerly swarming with rats.

The large surface water drains in Bath Street were cleaned out and relaid.

The Mortuary is now an accomplished fact, and is well lighted, ventilated, and supplied with water. I personally supervised the entire work, and am pleased to note that the expenses incurred were not great.

For years past I have advocated having a Disinfecting Chamber for the sole use of the Borough. The present system of sending to Heathcote Hospital may easily break down under the strain of an epidemic, and for this we ought to be prepared. I trust that we shall have a Disinfector in use before my next Annual Report.

The Pump Room Baths have been for some time exercising the minds of a specially appointed Sub-Committee, and, as a result, the Baths are now in process of such alteration as will bring them up-to-date in every detail, and make them equal to those in other health resorts in England.

In July your Committee made arrangements with the Council of Mason College, Birmingham, for the more complete diagnosis of cases of Diphtheria and Enteric Fever, by means of Bacteriological examination. I issued to my medical brethren in the town a printed form to that effect, instructing them how to apply for the necessary apparatus, and forward the same after use to the College for examination. Four cases of Diphtheria were reported upon, and three were confirmed in diagnosis. This system ought to prove a great boon to the Borough.

Table IX.—Mr. Anderson's report shows what an amazing variety of sanitary work was carried out by the Department. The officials, one and all, have had a most trying year, and the pressure of work was often as much as the Department could bear.

The regulations under the Contagious Diseases (Animals) Act, 1886, and Dairies, Cowsheds, and Milkshops Order of 1885, were adopted, and came into force on the 25th July, 1898. There are 90 dairies and milkshops and 16 cowsheds in the Borough. Mr. Anderson was appointed Inspector to carry out these regulations, and numerous alterations have been made in ventilation, lighting, paving, and drainage of cowsheds. Water supply has received marked attention, and a proper register is kept.

Under the Factory and Workshops Act 43 orders were carried out to the satisfaction of H. M. Inspector of Factories.

Under the Food and Drugs Act 27 samples were taken, and two prosecutions for impure milk obtained conviction of the offenders.

208 drain tests were applied.

One Magisterial Order was made for the destruction of food unfit for use, and considerable quantities of meat, fish, and poultry were voluntarily given up for destruction during the hot season.

The offensive trades, such as tripe dressing and gut scraping, have now been put under proper control, and, as a very gratifying result, scarcely any offal is now found at the sewage tank.

One prosecution took place, and conviction followed, for using an unlicensed slaughter house.

Four polluted wells were closed.

## Meteorology.

Mr. Barnitt, as has been his custom for many years, has furnished me with the Meteorological Report (No. XII.)

The figures will repay careful study, and we are indebted to Mr. Barnitt for his expenditure of time and trouble in producing his observations.

He remarks: "The rainfall is below the average by about one-fourth, and the number of rainy days is correspondingly low. From the 30th August to the 27th September rain was recorded on one day only. The amount—·011 inch. Mean temperature—is 2° above the average. Highest temperature was on the 8th September—89·5 Faht.; the lowest on the 21st February—24·2 Faht. Humidity is normal."

It only now remains for me to thank the Chairman and your Committee for their courtesy and ready help in carrying out my duties. To Dr. Rice I owe a strong debt of gratitude for his able assistance at all times, more especially in acting for me during any absence on leave.

I am, Gentlemen,

Your obedient Servant,

SAMUEL BROWNE, M.D., D.P.H.,

*Medical Officer of Health.*





TABLE IV.

**NORTH-EAST WARD.**

Estimated Population—7402.

Death Rate—16·4.

QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.		
	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.
1st	6	4	1	...	11	12	34	...	...	...
2nd	4	3	2	...	7	9	25	1	1	2
3rd	15	...	2	2	8	8	35	8	...	8
4th	4	1	1	2	12	8	28	1	1	2
Totals	29	8	6	4	38	37	122	10	2	12

TABLE V.

**SOUTH-EAST WARD.**

Estimated Population—8579.

Death Rate—15·1.

QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.		
	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.
1st	6	2	1	1	8	16	34	...	...	...
2nd	5	7	1	...	9	9	31	2	1	3
3rd	14	3	...	...	9	11	37	3	...	3
4th	3	3	...	1	11	10	28	3	...	3
Totals	28	15	2	2	37	45	130	8	1	9

TABLE VI.

**WEST WARD.**

Estimated Population—7568.

Death Rate—11·7.

QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.		
	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.
1st	7	...	1	1	7	11	27	...	...	...
2nd	2	1	...	...	10	8	21	...	...	...
3rd	3	1	1	...	4	15	24	1	...	1
4th	5	...	...	...	6	6	17	...	...	...
Totals	17	2	2	1	27	40	89	1	...	1

TABLE VII.

**MILVERTON AND LILLINGTON WARD.**

Estimated Population—3871.

Death Rate—11·8.

QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.		
	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.
1st	...	2	...	1	7	6	16	...	...	...
2nd	...	...	...	...	3	7	10	...	...	...
3rd	...	1	...	2	3	8	14	...	...	...
4th	...	...	...	...	4	2	6	...	...	...
Totals	...	3	...	3	17	23	46	...	...	...

TABLE VIII.

**WARNEFORD HOSPITAL AND HOME FOR INCURABLES.  
RIVER AND CANAL.**

	QUARTERS.	TOTAL MORTALITY.							ZYMOTIC DEATHS.		
		Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 65.	65 years and upwards.	Totals.	Under 5 years.	5 years and upwards.	Totals.
Warneford Hospital.	1st	...	1	...	4	8	2	15	...	...	...
	2nd	...	1	2	1	7	2	13	...	...	...
	3rd	...	1	2	...	9	4	16	1	...	1
	4th	...	1	1	2	3	2	9	...	...	...
	Totals	...	4	5	7	27	10	53	1	...	1
Home for Incurables.	QUARTERS.										
	1st	...	...	...	...	1	...	1	...	...	...
	2nd	...	...	...	...	1	...	1	...	...	...
	3rd	...	...	...	...	...	...	...	...	...	...
	4th	...	...	...	...	1	2	3	...	...	...
Grand Totals		...	...	...	...	3	2	5	...	...	...
River and Canal.	QUARTERS.										
	1st	...	...	...	...	...	...	...			
	2nd	2	...	...	...	2	...	4			
	3rd	...	...	1	..	1	1	3			
	4th	...	...	...	...	1	...	1			
Totals		2	...	1	...	4	1	8			







TABLE X.

Table of Deaths during the Year 1898, in the Royal Leamington Spa Urban Sanitary District.  
Classified according to DISEASES, AGES, and LOCALITIES.

MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							Under 5 upwards	1	2	3	4	FEVERS.				9	10	11	12	13	14	15	16	17	18	19	20	21	22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.						Typhus.	Enteric or Typhoid.	Continued.	Relapsing.															Puerperal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
North-East Ward ...	122	29	8	6	4	38	37	Under 5 upwards	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	21	...	1	3	...	8	9	5 upwards	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
Deaths occurring within the district among persons not belonging thereto.	...	...	...	...	...	...	...	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
	50	2	3	3	7	25	10	5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45





TABLE XII.

METEROLOGY OF LEAMINGTON, 1898.

Abstract of Meteorological Observations taken at 86, The Parade, during 1898, by J. BARNITT.

Latitude 52deg. 18 N. Longitude 1deg. 30 W. Height above the sea level, 195 feet.

The Instruments have been verified at Kew and Greenwich, and the necessary corrections have been applied for index error, capillary action, temperature, and diurnal range.

Month.	Mean of Pressure 9 a.m.	AIR TEMPERATURE.						Relative Humidity.		Rainfall.	
		9 a.m.	Means of		Absolute Maximum and Minimum.		Date.	9 a.m.	Inches.	Total Fall.	Number of Days.
			Maximum.	Minimum.	Maximum.	Minimum.					
January ...	Inches. 30·272	° 44·6	° 48·6	° 39·9	° 55·9	° 30·2	30th	% 85	·781	7	
February ...	29·926	40·9	56·4	35·4	54·9	24·2	15th	84	1·012	13	
March ..	29·890	39·6	48·6	33·2	59·0	25·6	18th	81	·770	12	
April ...	29·891	46·7	57·9	39·6	67·6	28·1	8th	77	1·551	12	
May ...	29·837	49·2	60·1	44·9	74·0	36·7	23rd	78	3·270	21	
June ...	29·967	57·5	68·3	49·4	77·8	37·3	11th	78	·825	13	
July ...	30·112	59·0	72·4	52·7	81·7	42·9	16th	71	·980	5	
August ...	30·003	60·8	73·0	55·0	84·9	47·2	22nd	76	3·116	12	
September ...	30·085	59·8	72·5	51·6	89·5	36·4	8th	73	·507	4	
October ...	29·820	51·9	58·7	47·2	69·1	36·1	3rd	85	2·520	16	
November ...	29·816	45·4	51·4	40·4	60·3	27·2	2nd	86	1·782	10	
December ...	29·975	46·7	50·8	41·5	57·5	29·2	5th	84	1·574	11	
Totals ... ..	359·594	602·1	708·7	530·8				958	18·688	136	
Means ... ..	29·966	50·2	59·1	44·2				80	1·557	11·5	



